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PRE-APPEAL BRIEF REQUEST FOR REVIEW

Docket Number (Optional)

084-06

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name _____

Application Number

10/581,353

Filed

May 31, 2006

First Named Inventor

Uwe Hauf

Art Unit

1792

Examiner

Sylvia MacArthur

Applicant requests review of the final rejection in the above-identified application. No amendments are being filed with this request.

This request is being filed with a notice of appeal.

The review is requested for the reason(s) stated on the attached sheet(s).

Note: No more than five (5) pages may be provided.

I am the



applicant/inventor.

/JFM/

Signature



assignee of record of the entire interest.

See 37 CFR 3.71. Statement under 37 CFR 3.73(b) is enclosed.
(Form PTO/SB/66)

John F. McNulty

Typed or printed name



attorney or agent of record.

Registration number _____

215-568-4900

Telephone number



attorney or agent acting under 37 CFR 1.34.

Registration number if acting under 37 CFR 1.34 _____

23,028

Date

August 6, 2009

NOTE: Signatures of all the inventors or assignees of record of the entire interest or their representative(s) are required. Submit multiple forms if more than one signature is required, see below*.



*Total of 1 forms are submitted.

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Application Serial No.	10/581,353)	
)	
Applicants:	Uwe Hauf)	
	Henry Kunze)	Examiner: Sylvia MacArthur
	Ferdinand Wiener)	Art Unit: 1792
)	
Filing Date:	May 31, 2006)	
)	
Confirmation No.	3626)	

REASONS FOR REQUEST FOR REVIEW

Applicants request review of the Final Rejection of claims 1-24 that was made in the Official Action of February 6, 2009. Three months' petitions for extensions of time, extending the time to file a Notice of Appeal until August 6, 2009, have been requested or filed herewith, as is the Notice of Appeal. The subject matter of the claims and the reasons that the Rejection should be withdrawn are set forth below.

The text of the claims that are rejected are those set forth in the amendment filed October 21, 2008.

Representative claim 1 will first be addressed.

On the following page, there is a comprehensive snapshot of the issues, where representative claim 1 appears in the center of the sheet, with pertinent portions of the drawings of Applicants on the left side thereof, and with pertinent portions of the drawings of Henington on the right side thereof.

The portions of claim 1 that are disclosed in Henington and those that are not included in the disclosure of Henington are respectively designated to the right of claim 1, as either "YES" or "NO".

There are four features of claim 1 where "NO" is designated as not being disclosed in Henington, and corresponding footnotes 1-4 appear at the bottom of page 2.

Page 2 of this Request for Review thus provides a pictorial snapshot of the deficiencies of Henington in meeting four features of claim 1, with corresponding text in footnotes, as well as the corresponding pictorial disclosures of Applicants.

YES

1. A treatment unit for the wet-chemical or electrolytic treatment of flat workpieces, comprising conveying members for transporting the workpieces in the unit on a conveying path, and treatment devices for the workpieces characterized in that the treatment unit further comprises

YES

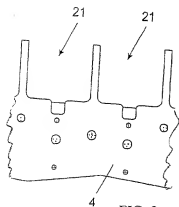


FIG. 2

YES

a) carrier elements (4, 5) with recesses (21), said carrier elements being oriented to be parallel to the conveying path and wherein all the recesses (21) have the same dimensions and shapes, or wherein a few differently configured groups of recesses are provided in the carrier elements (4, 5), all recesses (21) having the same dimensions and shapes, and

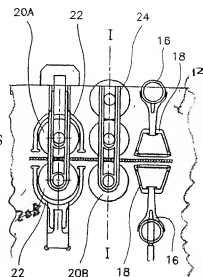


FIG. 1

YES

b) at least one module system, each one serving for carrying or securing at least one item selected from the group comprising the conveying members (6, 6', 6'', 7), and the treatment devices, said module system comprising insertion elements (13, 14, 26), said insertion elements (13, 14, 26) being configured such that they are fitted into the recesses (21) of the carrier elements (4, 5), characterized in that the insertion elements (13, 14, 26) are designed such that they are able to carry or secure either a group of at least two conveying members which are all located on one side of the conveying path or at least one treatment device or an ensemble of at least one conveying member and at least one treatment device.

YES

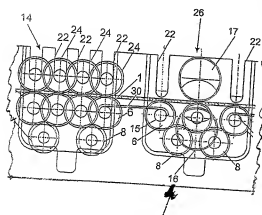
NO¹

YES

NO²

NO³

NO⁴



16 & 17 are treatment devices

YES

YES

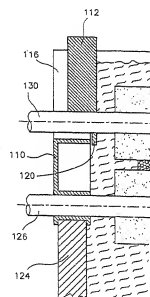


FIG. 7D

- Module systems of Henington that carry upper and lower rollers 20A and 20B; 130 and 126 in recesses like 116 (Fig. 7D) do not carry Henington treatment devices 16;
- Henington's apparatus 24, 112, 114 (insertion elements) do not carry or secure 2 conveying members on one side of the conveying path;
- or at least one treatment device [Henington treatment (fluid delivery) devices 16 are carried by tank sidewalls 12];
- or an ensemble of at least one conveying member and at least one treatment device.

It will first be noted that the module of Henington that carries upper and lower conveying members, does not include any treatment devices.

Next, the insertion elements of Henington (apparatus features 24, 112, 114) do not carry or secure 2 or more conveying members on one side of the conveying path.

Next, Henington's treatment devices 16 are not carried by the insertion elements 24, 112 or 114 of Henington; rather, they are carried by the tank side walls 12 of Henington.

Finally, the insertion elements of Henington's apparatus; namely features 24, 112, 114 do not carry any ensemble of at least one conveying member and at least one treatment device.

Even if Henington is interpreted as meeting a portion of the feature of clause (b) of claim 1 that requires that the module system carry or secure at least one of the conveying members and treatment devices, on the grounds that it carries at least conveying members, the remaining three features in the characterizing clause of claim 1, and which are the subject of footnotes. 2, 3 and 4, are completely absent from Henington.

Thus, Henington does not teach more than one conveying member on the same side of the path of travel of the workpiece, carried by an insertion element; it teaches only a single such conveying member. And, as addressed above, Henington does not teach that the insertion element carries a treatment device, or an ensemble of at least one conveying member and at least one treatment device.

While in the Final Rejection the Examiner took the position that to modify Henington to carry two conveying members via the insertion element on one side of the conveying path could amount to a mere duplication of parts, and that there would be a motivation to make that change in order to increase the throughput. Applicants pointed out in the response to the Final Rejection filed April 8, 2009 that there is no way that one could increase the throughput by adding additional conveying members; rather, only by speeding up the rollers can Henington increase throughput. In Henington the printed circuit boards 14 that are being treated move at a constant speed (column 6 line 35) with both axes driven by a motor (column 11 lines 1-3 and Fig. 7D). The number of rollers can have no effect on throughput.

As to the comments in numbered paragraph 5 of the Final Rejection to the effect that Applicants have not established any criticality of a need for a plurality of conveying members, Applicants have pointed out in the post-Final submissions of April 8, 2009 and June 25, 2009, the criticality of features of the present invention as follows:

- The present invention provides a flexibility and permits ready utilization of different transport systems without involving major expense and without having the carrier elements needing to be re-adapted each time a change has to be performed in the treatment unit. As was further explained in those remarks, Henington et al would seem to necessarily require reconstruction every time a unit is to be re-adapted from, for example, handling a thicker material, to handling a thinner, more flexible material, by either cutting

additional slots or changing the sidewalls to accommodate different units, resulting in delay in the manufacturing and additional expense.

By providing the insertion elements according to the present invention, it is possible to have the insertion elements carry all functions which are required to process the workpieces in the treatment unit (i.e. conveying members and treatment device and other elements).

Treatment units like Henington et al must be designed depending on the type of the workpieces that are to be handled. The construction of the treatment units according to the present invention comprises carrier elements which are all the same, regardless of the type of workpieces being worked upon.

In accordance with the present invention it is only necessary that the insertion elements be selected for whatever specific treatment is desired for the workpiece. Thus there is a standardization of the treatment units that offers greater flexibility in construction, manufacturing and retrofitting of the treatment devices, because the insertion elements can be designed according to the needs, and readily replaced depending upon which features are desired for the insertion elements, as dictated by whatever workpieces are being worked upon. The present invention helps enormously in cost reduction, because the carrier elements in the treatment units of the invention may be constructed identically, irrespective of the type, size and/or thickness of the workpieces that are to be processed.

For example if one is retrofitting a treatment unit from a previous processing of thick boards in accordance with the present invention, to thereafter process thin foils, such retrofitting can be made very efficiently and quickly in accordance with the present invention by simply exchanging the respective insertion elements required for the new workpieces. The processing of thick boards requires a relatively large distance between the axes of the conveying members, whereas the foils requires a small distance between these axes.

In accordance with the present invention, the treatment units that are used for foil can carry a plurality of conveying members, not for purposes of increasing throughput, but to keep the thin foils horizontal in their path of travel, whereas the perhaps previously treated thicker workpieces may have had, as part of their insertion element, a single conveying member and a treatment unit.

In accordance with the present invention, there is no remodeling required for the carrier elements. Rather, the changeover from insertion elements which comprise conveying members and/or treatment device at a large pitch (or distance apart in the longitudinal direction) to insertion elements which comprise the conveying members and/or treatment devices at a small pitch is sufficient to adapt to processing thin foils instead of the previously processed thick boards. This change may very easily and efficiently be effected by simply pulling out the insertion elements designed for thick boards and inserting the insertion elements designed for thin foils.

There is an additional advantage in accordance with the present invention, because, unlike Henington et al, it is no longer necessary to have one recess for each conveying member. Rather, one recess can now be used to accommodate a group of conveying members, which allows smaller distances between the axes of these conveying members, a feature which is especially important when the workpiece is a thin foil.

- where different workpieces are to be treated, only the insertion elements and modules must be fitted to the requirements of those workpieces; unlike Henington where the walls of the tank 12 would have to be modified to accommodate changes in the workpiece (boards);
- the treatment tank and carrier walls of the present invention can be manufactured independently of the insertion elements, with it only be necessary that the

insertion elements must fit into the recesses in the carrier elements; the insertion elements may comprise either two conveying members or a conveying member and a treatment device so that a great many carrier elements may be manufactured independently of the manufacture of a treatment unit, presenting a cost efficiency in manufacturing;

- when at least two conveying members are present on a single insertion element on one side of a conveying plane, a considerably smaller clearance may be achieved between the conveying members, a feature which is especially important for foil treatment.

Independent claim 23 is very similar to independent claim 1, and differs therefrom, in that where multiple features in claim 1 are separated by the conjunction “or”, claim 23 uses “any one of”, such that the substance of claims 1 and 23 are the same.

Claim 24 is somewhat similar, in that instead of the conjunction “or” for different features, the phrase “at least one of” was used.

All of the dependent claims depend from or include all of the subject matter of claim 1.

Some dependent claims are additionally rejected over Henington in view of secondary prior art, but none of the secondary prior art address any of the deficiencies pointed out above that claim 1 requires and Henington does not disclose.

Conclusion

For all of the reasons set forth above, the Section 103 rejections of the claims of the instant application must necessarily fail.

Reconsideration and allowance of all of the claims is respectfully solicited.

Respectfully submitted,

/JFM/

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